

REMARKS

I. Introduction

In response to the pending Office Action, Applicant has amended claims 1, 11, 18 and 30 to further clarify the subject matter of the present invention. Support for the amendments to claims 1, 11, 18 and 30 may be found, for example, in Fig. 10 and on page 19, lines 3-10 of the specification. No new matter has been added.

Applicant notes with appreciation the indication of allowable subject matter recited in claim 28.

Applicant also appreciates the Examiner's granting of an interview, which occurred on January 16, 2007. During the interview, proposed amendments to the claims were discussed. Applicant agrees that the contents of the Interview summary dated January 23, 2007 reflect the content of the interview.

For the reasons set forth below, Applicant respectfully submits that all pending claims are patentable over the cited prior art.

II. The Rejection Of Claims 1, 11-13, 18 And 30 Under 35 U.S.C. § 103

Claims 1, 11-13 and 18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Mitsuka et al. (USP No. 4,687,944) in view of Edamitsu et al. (USP No. 6,729,239). Applicant respectfully traverses this rejection for at least the following reasons.

Amended claims 1, 11 and 18 disclose, in-part, an image recording or printing apparatus or an image recording method of recording an image onto a printing plate having an operation part for generating data of a modified image obtained by substantially modifying the width of the

original image in the subscan direction, wherein in modifying the width of the original image in the subscan direction, the modified image indicating the original image is distorted in the subscan direction without being distorted in the main scan direction; and a control part for controlling emission of the light beam according to the data of the modified image while shifting writing timing in the main scan direction by changing a cycle of a writing clock.

Thus, the modification in a subscan direction is performed by computation of an operation part and the modification in a main scan direction is performed by controlling a writing clock in a control part. In addition, the present invention also teaches a technique for generating data of a modified image that is distorted in the subscan direction without being distorted in the main scan direction. As a result of these limitations, a reduction in the amount of computation is achieved as compared to a method where the modifications in the main scan direction and subscan direction are performed only by computation.

Mitsuka discloses a picture image reproducing system containing a magnification converter 20 for increasing and/or decreasing the number of picture elements both in the main scan direction and the subscan direction. Edamitsu teaches an image recording device in which the dimensional correction of the images is achieved by either changing the rotational speed of the plate cylinders 1, 2 or by changing the cycle of the clock signal (see, Edamitsu, col. 15, lines 47-54). However, neither reference teaches a combination of modifying an image by computation in the subscan direction and by controlling a writing clock in the main scan direction. Nor is there any teaching or suggestion in the cited references that such a combination would result in a beneficial reduction of computation. Furthermore, neither reference teaches that in modifying the width of the original image in the subscan direction, the modified image indicating the original image is distorted in the subscan direction without being distorted in the

main scan direction. The passage from Edamitsu cited by the Examiner suggesting that the references should be combined merely states that the dimensional correction of the images may be achieved by changing the cycle of the clock signal instead of by changing the rotational speed of the plate cylinders. There is no mention of either of the above cited limitations. As such, neither Edamitsu nor Mitsuka teach or disclose claims 1, 11 or 18 of the present invention.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (CCPA1974). At a minimum, as Mitsuka and Edamitsu fail to teach or suggest an image recording or printing apparatus or an image recording method of recording an image onto a printing plate having an operation part for generating data of a modified image obtained by substantially modifying the width of the original image in the subscan direction, wherein in modifying the width of the original image in the subscan direction, the modified image indicating the original image is distorted in the subscan direction without being distorted in the main scan direction; and a control part for controlling emission of the light beam according to the data of the modified image while shifting writing timing in the main scan direction by changing a cycle of a writing clock, it is submitted that Mitsuka and Edamitsu, alone or in combination, do not render claims 1, 11 and 18 obvious. Accordingly, it is respectfully requested that the § 103 rejection of claims 1, 11, 18 and any pending claims dependent thereon be withdrawn.

Amended claim 30 recites an image modification method of modifying width of an image in a predetermined direction, comprising the steps of: inserting a blank to one end of said predetermined direction in an image space where a modified image is generated; and deleting or adding pixels while aligning pixels of an image before modification from said one end to the other end following said blank, wherein said modified image indicates said image distorted in

said predetermined direction without being distorted in a direction orthogonal to said predetermined direction.

In contrast to amended claim 30, neither Kato nor Yoshida teaches or suggests a modified image indicating the image distorted in a predetermined direction without being distorted in a direction orthogonal to the predetermined direction. Nor has there been an indication as such. Kato discloses only that a line of pixels is added or deleted in accordance with the magnification in the sub-scanning direction while at the same time, a pixel is added or deleted for every n pixels in the main scanning direction such that the pixels are kept aligned in the sub-scanning direction (see, Kato col. 5, lines 15-46 and col. 7, line 66-col. 8, line 2). Kato does not teach that the image is distorted in only one direction. Furthermore, Yoshida fails to remedy this deficiency.

Accordingly, Applicant submits that Kato, alone or in combination with Yoshida, fails to teach an image modification method where a modified image is generated; and deleting or adding pixels while aligning pixels of an image before modification from said one end to the other end following said blank, wherein a modified image indicates an image distorted in a predetermined direction without being distorted in a direction orthogonal to said predetermined direction. Applicant respectfully requests that the § 103 rejection of claim 30 be withdrawn.

III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 1, 11, 18 and 30 are patentable

for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

Moreover, regarding claim 7, it was alleged that Hideshima discloses an image recording method and apparatus, which comprises a laser light source 128 whose light beam is divided into a plurality of light beams aligned in the sub-scanning direction. However, the sub-scanning direction disclosed in Hideshima is in a circumferential direction of the drum, not a direction parallel to the rotational axis of the drum, which is the subscan direction of the present invention. Hideshima fails to teach or disclose an image recording apparatus wherein the light emission part emits a plurality of light beams aligned in the subscan direction, and data of the modified image generated with said commands for inserting a blank is data for performing writing while continuously moving irradiation positions of the plurality of light beams in the subscan direction. Accordingly, Applicant submits that Mitsuka, Edamitsu, Hosokawa and Hideshima, alone or in combination, fail to render claim 7 obvious.

IV. Conclusion

Having fully responded to all matters raised in the Office Action, Applicant submits that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

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including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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